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Taxus wallichina (Himalayan Yew; Loth salla) in Nepal: Indigenous Uses, Conservation and Agenda for Sustainable Management

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Abstract

During the ethnobotanical study of the mountainous regions of Nepal, a multipurpose useful coniferous tree *Taxus wallichina* Zucc. is documented from Tinjure of Terathum district of Nepal. At present, this taxa is overexploited for domestic uses as well as for trading. Appropriate conservation measures for this species are urgently needed.

Key words: *Ethnobotanical uses, Taxus wallichina, Tinjure.*

Introduction

Taxus wallichina Zucc. (Syn. *Taxus baccata* L; *Taxus baccata* L. subsp. *wallichina (*Zucc.) Pilger) (local names: Loth salla, Talispatra, Silange, Barme salla) is one of the notable species of Nepal (Fig.1). It is an economically important and evergreen coniferous tree, which is widely spread over at an altitude from 2,300 to 3,400 m. in the Western, Central and Eastern sub-alpine and temperate regions of Nepal (Press, Shrestha and Sutton, 2000). It is found in association with *Quercus semecarpifolia Abies spectabilis, Picea smithiana, Cedrus deodara, Tsuga dumosa*, and *Pinus wallichina* in higher altitudes.

Fig. 1. *Taxus wallichina* Zucc.: a multipurpose useful coniferous tree.

Recently more attention has been paid to this species due to its usefulness to cure cancer. As a matter of fact, this valuable resource is being exploited by the collectors, traders and industrialists recklessly beyond its regeneration capacity. The present rate of exploitation has rendered it to the status of threatened species. Therefore priority should be given to conservation of this species and its exploitation should also ensure its sustainability.

During the fieldwork from Basantpur to Mirmi of Eastern Development Region, ethnobotanical information was collected from Tinjure of Terathum district using field techniques such as direct interview, discussion with local people and direct observation on the way the useful parts of this species were being collected and used.

Ethnobotanical Uses

Various parts of this species are used for food, medicine, fuel and other domestic purposes as given below:

- *Food*: The bright-red berry-like fruit ripens in November. The red and fleshy cup-shaped aril that surrounds the seed is eaten by villagers.
- *Wood*: The wood is hard, fine and even-grained and moderately heavy. Wood is used as fuel. The wood of this species has poor timber value, but widely used as timber and for making doors, windows etc.
- *Medicine*: Leaf and bark are the source of taxol, which is said to be used as anti-tumour agent and also to cure cancer. In the studied village, decoction of leaves is given for cough,

bronchitis, and asthma. Kayastha (2002) reported a tincture made from young shoots that was used for treatment of headache, giddiness and diarrhoea.

- *Others:* Some other utilization of wood is for making of agricultural tools; the wood is also burnt as incense. Green twigs are used to decorate houses in Nepal during religious festivals.

Conservation Status and Agenda for Sustainable Management

In the study area of Tinjure of Terathum district, this taxa is overexploited (Joshi, 2000; Joshi *et al.*, 2002; Fig. 2). The plant is looped and cut for domestic uses as well as for trading. The Government of Nepal has already banned this plant for export under the Forest Act (1993). However, by obtaining permission from the Government its processed material can be exported. Appropriate conservation measures for this species are urgently needed.

Fig 2. Habitat destruction in Tinjure.

Some important measures for its sustainable management are recommended as follows:

1. There is an urgent need for a national policy with concrete action plan and program with the objective of sustainable management of the useful species facing severe threats;
2. Emphasis should be laid on the development of an intensive inventory of the plants

including their distribution, biomass, chemical constituents, regeneration capacity and ecological aspect of the suitable habitats and their potential utilization as food, drugs, insecticides etc.

3. Priority should be given to the conservation (*in-situ* or *ex-situ*) of this plant.

4. Awareness creation programme aiming at sustainable management and utilization of the species will have to be implemented targeting the local rural people as major stakeholders.

Conclusion

In conclusion, *Taxus wallichina* has multiple uses of high value while fulfilling the basic needs of the local people. Therefore, urgent strategic plan of action will have to be formulated and implemented with the objective of protection and sustainable use of this species.

References

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